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TITLE : OXIDATION TREATMENT FOR TITANIUM AND TITANIUM ALLOY

ABSTRACT : PURPOSE: To improve wear resistance and mechanical strength by changing the heating temp. for Ti and Ti alloy within a specific range in a method for oxidation treatment where Ti and Ti alloy are heated in the air.

CONSTITUTION: In a method for oxidation treatment where Ti and Ti alloy are heated in the air to form an oxide layer and an oxygen-enriched layer on the surfaces, the heating temp. for Ti and Ti alloy is set and held at 750-1100°C, preferably 875-1050°C. By this method, hardness can be increased without causing extreme changes in the increase in weight due to the incorporation of oxygen in heating for the prescribed length of time, and further, mechanical strength can be increased without causing extreme changes in the average grain size of a metallic structure.

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